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classroom collaboration could be applied in any course that uses a challenging text, a book of readings, or original sources.

The psychology instructor implemented the summary writing activities without the WAC director's assistance in the I/O course the following year. She learned that leading the read/rank/review discussion requires practice. She made the mistake of occasionally describing the model summaries with the terms *excellent* and *poor* instead of *needs least revision* and *needs most revision*. Excellent and poor are more judgmental terms and thus more intimidating to students. Two students from this second class wrote in their evaluations that using student writing as models may offend some students. The previous class made no comments of this sort in their evaluations. However, the written evaluations from this second class were still very positive. For example, one student wrote:

> This information was stamped into our memory, and it gave us an opportunity to examine the clarity of our writing and to compare it to other students. After comparing the summaries, we could determine the important criteria for summary writing. We will be able to use these criteria in other classes.

We hope that the student who complained that these activities "made her think" was accurate in her observation. The challenge for educators is to prepare students for a "lifetime of continuous, autonomous learning" (Miller, 1987, p. 9). The ability to extract the key points from a text is just one of many ways to prepare students to meet this goal.

References

Allen, R. I., & Latosi-Sawin, E. (1992, March). *Teaching social work writing skills: An invasion of the community*. Paper presented at the 1992 Annual Program Meeting of the Council on Social Work Education, Kansas City, MO.

Cook, T. D., & Campbell, D. T. (1979). *Quasi-experimentation: Design & analysis issues for field settings*. Boston: Houghton Mifflin.

Kintsch, W., & van Dijk, T. A. (1978). Toward a model of text comprehension and production. *Psychological Review, 85*, 363–394.

Landy, F. J. (1989). *Psychology of work behavior* (4th ed.). Belmont, CA: Brooks/Cole.

Latosi-Sawin, E., & Krueger, D. (1993). Carving out the clutter: Data reduction and interpretation. In W. A. Hamel (Ed.), *Proceedings of the 11th Annual Conference of the Association of Management* (pp. 41–46). Newport News, VA: Maximilian.

Mathie, V. A. (1993). Promoting active learning in psychology courses. In T. V. McGovern (Ed.), *Handbook for enhancing undergraduate education in psychology* (pp. 183–212). Washington, DC: American Psychological Association.

McGovern, T. V., & Hogshead, D. L. (1990). Learning about writing, thinking about teaching. *Teaching of Psychology, 17*, 5–10.

Miller, N. E. (1987). Education for a lifetime of learning. In G. C. Stone, S. M. Weiss, J. D. Matarazzo, N. E. Miller, J. Rodin, C. D. Belar, J. J. Follick, & J. E. Singer (Eds.), *Health psychology: A discipline and a profession* (pp. 3–15). Chicago: University of Chicago Press.

Nodine, B. F. (Ed.). (1990). Psychologists teach writing [Special issue]. *Teaching of Psychology, 17*(4).

Winograd, P. N. (1984). Strategic difficulties in summarizing texts. *Reading Research Quarterly, 19*, 404–425.

Notes

1. This article is based on a paper presented at the 16th Annual National Institute on the Teaching of Psychology, St. Petersburg Beach, FL, January 1994.
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In two studies, I examined student responses to an increased emphasis on experiential activities in a required undergraduate developmental psychology course. For four experiential sections (n = 143), each class topic was related to a specific, real-world application. Four other sections (n = 187) were taught primarily by lecture, with one out-of-class observation assignment. The experiential sections rated the value of and interest in the subject matter higher and the courtesy and consideration of the instructor significantly more positively than did the lecture sections. Students in the two types of sections did not differ significantly in achievement. A follow-up study identified the origin of change in attitudes toward the course.

One current trend in undergraduate teacher preparation programs and other preprofessional programs is to increase field experiences that enable students to better understand the applications of the material they are taught (Hall, 1992; Heinemann, Obi, Pagano, & Weiner, 1992; Kagan & Warren, 1991–1992; Rovegno, 1992). According to Goodlad (1990), field experience also allows students to assess the match between their skills and interests and the field's characteristics. *Experiential education*, the most common generic term for these field experiences, can be defined as immersing students in an activity (ideally, closely related to course material) then asking for their reflections on the experience (Stevens & Richards, 1992).

Studies of experiential education with students of varying ages have yielded mixed results. On the positive side, Biermann and Sarinsky (1990) found biology course grades to be significantly higher for college students taught with hands-on experiences than for control or remediation-based groups, and Kepler (1992) reported that students' understanding of data organization techniques and familiarity with each other were enhanced by an experiential activity involving analysis of information about classmates. In terms of attitudes, Hall (1992) found that college students who planned to teach elementary school had improved attitudes toward science after participating in an activity-centered biology course. Walberg, Schiller, and Haertel (1979) also noted positive affective changes in students after they implemented an experiential program. A few early studies revealed achievement gains with discovery learning, the "first cousin" of experiential learning (Gagné & Brown, 1961; Hillocks, 1984).

On the negative side, research by Haberman and Post (1992) indicated that, even when using field experiences, college students perceive their experiences selectively, ignoring information that is inconsistent with their previously held ideas. So, in their attempts to broaden students' perspectives, faculty may actually be strengthening students' preconceptions. Some early studies focusing on achievement failed to find improvement (e.g., Walberg et al., 1979), at least when defining experiential learning as discovery learning.

Due to the possibility that adding more experiential learning would improve students' attitudes and achievement, I revised a developmental psychology course required for students in a teacher education program. Before the revision, the course included lectures; films; a 6- to 9-hr observation assignment of a single child that focused on physical, cognitive, psychosocial, moral, and language development; and an in-class group assignment to administer 3 to 5 Piagetian tasks to children in each Piagetian stage during one class period (Piaget & Inhelder, 1969). The number of tasks administered by any one student varied from none to several. In the revised class, students continued these activities and conducted a 1- to 2-hr systematic observation of children, adolescents, or pregnant women (the choices are listed in Table 1), followed by a class presentation. Because these additional observations were tied to specific course topics, students gained firsthand experience that they could relate to the factual and theoretical course material. Moreover, the in-class presentations provided many examples from enthusiastic class members to reinforce all students' learning and provided a chance for students to speak before a group, which was beneficial for students preparing to be teachers.

Table 1. Experiential Assignments

Prenatal clinic at county health department.
Newborns at hospital newborn nursery.
Physical development of kindergarten—second-grade students.
Physical development of third- through fifth-grade students.
Physical development of middle grade students.
Physical development of high school students.
Language development of preschoolers.
Information processing of children under 6 years old.
Information processing of children over 8 years old.
Parent–child interaction in a formal setting (e.g., church).
Parent–child interaction in an informal setting (e.g., playground).
Social interaction among kindergarten—second-grade students.
Social interaction among third- through fifth-grade students.
Social interaction among middle grade female students.
Social interaction among middle grade male students.
Social interaction among high school female students.
Social interaction among high school male students.
Unmonitored adolescent activity.

Study 1

In the first study, I investigated changes in attitude and achievement. I hypothesized that making such course changes would positively affect students' attitudes toward the course: They would report greater value of the subject matter and more interest in the topic. I also hypothesized, however, that students would perceive me as less organized due to the variations in format and novelty of the teaching approach. No predictions were made for achievement. Although students may learn more in the revised course, exams were not redesigned to reflect the content of the presentations in order to keep them the same as exams before revision.

Method

Subjects. Of the 330 students, approximately 95% were required to take the course as a prerequisite to admission in a teacher education program. Students in four sections (n = 187) comprised the lecture group (LG); 34 (18%) students were men. Across four sections (n = 143) of the experiential group (EG), 34 (24%) students were men. Although 187 students in the LG and 143 in the EG could be compared on final grades (the achievement measure), only 150 in the LG and 129 in the EG completed the course evaluations (the attitude measure) on the last day of class. The remaining students (20% for the LG and 10% for the EG) were absent that day. The mean final grades for these absent students were similar across groups, both falling approximately 3 points below the mean of the entire distribution. There is no reason to assume that their attitudes would have altered the magnitude of any differences between the LG and the EG.

There were no changes in entrance requirements for the course or in difficulty of tests during the time of the study; the sizes of the classes did not differ, with approximately 40 per section. For each quarter analyzed, approximately 50% of the students were in a midmorning section and 50% in an early afternoon section.

Instrument. The institution's regular instructor/course evaluation form measured students' attitudes on a 5-point scale ranging from *strongly agree* (5) to *strongly disagree* (1). Table 2 lists the 16 items that were rated. Course value (Item 16), instructor organization (Item 6), and inherent interest in the subject matter (Item 14) were the three items hypothesized to change.

Procedure. At the first meeting of each EG section, the instructor described the field experiences by characterizing each observation site and its corresponding topic. From two to four students were assigned to each topic according to their interests. Students received brief, general guidelines for areas to cover within their observations and presentations. For example, the guidelines for any of the social interaction topics asked students to describe the interactions between children, including who talks, who listens, who moves their bodies, who touches others, and so on. Students also identified leaders, followers, and children's methods of initiating contact. Students were told that they would have approximately 5 min for their presentations. They could choose their own presentation format, including lectures, transparencies, videotapes (with consent of participants), audiotapes, handouts, or posters.

In the LG and EG, the instructor lectured on research methodology in general and observational research in particular during the second and third classes. Students also practiced taking observation notes, first by observing each other as they sat in class and then by watching a 4-min videotape showing spectators at a basketball game. Both times they compared notes with classmates. The first group of students in the EG gave their presentations 1 week after this instruction. Students were required to turn in only their observation notes. The instructor provided feedback on the adequacy of the observation notes and a critique of the presentation.

Student presentations lasted an average of 15 min of each 125-min class period in the EG, and the LG had this time allotted to lecture and videotapes. Otherwise, class formats did not differ; lecture and test contents, test format, and textbook remained the same. The same instructor taught four sections of developmental psychology before the format change (LG) and four sections after the format change (EG).

Table 2. Items From the Instructor/Course Evaluation Form

1. The instructor made the major objectives of the course clear.
2. There was considerable agreement between the announced course objectives and what was actually taught.
3. The instructor explained important ideas.
4. The instructor encouraged critical thinking and analysis.
5. The instructor was available for consultation.
6. The instructor's class presentations were planned and organized.
7. The instructor was receptive to student viewpoints different from his or her own.
8. The instructor explained his or her grading system.
9. The instructor was knowledgeable about his or her area of specialty.
10. The instructor designed evaluations in this course that related to the material covered.
11. The instructor was courteous and considerate toward students.
12. The instructor graded tests and other work, such as term reports, in such a way that students could understand their weaknesses.
13. The instructor used class time wisely.
14. This course increased my interest in the subject.
15. My awareness in this subject has been greatly expanded by this course.
16. The subject matter of the course, regardless of the instructor, is valuable to me.

Results

Average final grades for the LG and EG sections were compared. The LG grades ($M = 83.2$, $SD = 6.5$) did not differ significantly from the EG grades ($M = 82.1$, $SD = 7.5$), $t(328) = 1.38$, $p > .05$. Students were graded on (a) three 50-item multiple-choice exams (100 points each); (b) observation notes and a typed summary of findings for the observation of an individual child (150 points); and (c) attendance, punctuality, and class participation (25 points). Percentage of total possible points was used in determining the final course grade. Students in the EG did not receive points for the additional observation and presentation, but their final grade was lowered by one letter if they omitted the assignment. One student decided that she could not speak in front of the group, agreed to have her grade lowered, and changed her major from education to another field due to this assignment. The EG mean was computed after her grade was changed.

Instructor/course evaluation forms were compared between the LG and EG sections. Because the responses to these items failed the test of normality, a Wilcoxon's rank-sum test was used. Significant differences were found only for Items 11, 14, and 16. Unexpectedly, EG students rated the instructor more courteous ($M = 4.64$, $SD = .80$) than LG students ($M = 4.41$, $SD = .73$), $z = 2.69$, $p < .01$. As predicted, EG students thought the subject matter was more valuable ($M = 4.36$, $SD = .91$) than LG students ($M = 4.06$, $SD = .98$), $z = 2.48$, $p < .01$. The course also appeared more interesting to EG students ($M = 4.05$, $SD = 1.03$) than to LG students ($M = 3.79$, $SD = 1.10$), $z = 2.30$, $p < .02$. There were no other significant differences between the LG and the EG, including their perception of instructor planning and organization.

Study 2

Lack of significant differences on the other items in Table 2 supports the assertion that LG and EG classes were taught in similar ways with the exception of the extra observation assignment. However, because none of the course evaluation items specifically targeted the assignment, two more EG sections of developmental psychology were asked to rate the field experience component.

Method

Subjects. Of the 105 students enrolled, 95 of them (27 men and 68 women) completed an additional survey.

Instrument. Students were asked 20 questions: Four were related directly to the observation/presentation assignment; 1 was open-ended; and the rest probed areas such as

lectures, films, and the other observation. Thus, students should not have been sensitized to the instructor's interest in the observation/presentation assignment.

Procedure. On the last day of class, the instructor asked students to evaluate various components of the course. Students were instructed not to put their names on the survey, and they were assured that their responses would not affect their grades.

Results

Of 95 students responding, 70% favored keeping the observation/presentation assignment in the course, 20% favored eliminating it, and 10% were undecided. Although only 66% of students enjoyed giving their own presentation, 94% reported they had learned from the experience. Eighty percent enjoyed listening to the other students' presentations, and 78% reported they had learned from listening to other students' presentations. The most common benefit cited for the assignment was receiving firsthand, real-life experience in course material. The second most common benefit cited was hearing others' points of view and descriptions. Many students also mentioned gaining more observation experience, learning presentation techniques from other students, and being exposed to school settings as being beneficial. Benefits mentioned by only one or two students included having speaking experience, getting acquainted with other class members, enjoying a break from lectures, and increasing awareness of their future career (teaching).

Discussion

Many new ideas are implemented, but the effects of such changes often go unassessed. My investigation addressed the attitudes after and the achievement in a course in which a field component was added. Results indicate that students perceive the difference positively with regard to interest in the subject matter, value of the subject matter, and courtesy and consideration of the instructor.

A follow-up study indicated that the original goals for adding the assignment were met. Students perceived the value of applying course material, and their interest was enhanced through exposure to real-world experience. Some were made more aware of their future careers and indicated that the speaking experience was beneficial.

Achievement, as measured by final course grades, did not change after a field component was added, but attitudes were more favorable. If the assignment was added to a course that did not already have one observation project, the affect on achievement may be more noticeable. Further research should include an assessment of the impact of such assignments on longer retention of course material, as well as an assessment of changes in performance or attitudes toward future courses in the same or similar subject areas.

For me, the change in attitudes, particularly interest and perceived value, makes the assignment worthwhile even without a significant improvement in course grades. Moreover, the extra effort for instructors is not great because the assignment does not have to be graded.

References

Biermann, C. A., & Sarinsky, G. B. (1990). *The effects of hands-on versus remediation-based biology preparatory course curricula on performance in follow-up biology courses at the community college level.* Brooklyn, NY: Kingsboro Community College, City University of New York, Department of Biological Sciences. (ERIC Document Reproduction Service No. ED 328 414)

Gagné, R., & Brown, L. (1961). Some factors in the programming of conceptual learning. *Journal of Experimental Psychology, 62,* 313–321.

Goodlad, J. I. (1990). *Teachers for our nation's schools.* San Francisco: Jossey-Bass.

Haberman, M., & Post, L. (1992). Does direct experience change education students' perceptions of low-income minority children. *Midwestern Educational Researcher, 5*(2), 29–31.

Hall, D. A. (1992). The influence of an innovative activity-centered biology program on attitudes toward science teaching among preservice elementary teachers. *School Science and Mathematics, 92,* 239–242.

Heinemann, H., Obi, R., Pagano, A., & Weiner, L. (1992). *Effects of using early pre-service field experiences in urban settings to prepare teachers to meet the challenges of teaching in multicultural urban schools.* Jersey City: Jersey City State College, Administration, Curriculum, and Instruction Department. (ERIC Document Reproduction Service No. ED 344 868)

Hillocks, G. (1984). What works in teaching composition: A meta-analysis of experimental treatment studies. *American Journal of Education, 93,* 133–170.

Kagan, D., & Warren, E. (1991–1992). Differential supervision for early, middle, and late field experiences in teacher education. The case of Emily. *Action in Teacher Education, 13*(4), 10–16.

Kepler, L. (1992). Hands-on science: Getting-to-know-you graphing. *Instructor, 102,* 86, 88.

Piaget, J., & Inhelder, B. (1969). *The psychology of the child.* New York: Basic Books.

Rovegno, I. C. (1992). Learning to teach in a field-based methods course: The development of pedagogical content knowledge. *Teaching and Teacher Education, 8,* 69–82.

Stevens, P. W., & Richards, A. (1992). *Changing schools through experiential education.* (ERIC Document Reproduction Service No. 345 929)

Walberg, H., Schiller, D., & Haertel, G. (1979). The quiet revolution in educational research. *Phi Delta Kappan, 61,* 179–183.

Notes

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